

REMARKS

Claims 1-8 are pending in the application. In the office action dated January 27, 2005, the Examiner rejected all pending claims. Accordingly, in this amendment claims 1 and 6 have been amended, placing the claims in order for allowance. Claims 2 and 7 have been canceled. As a result of claim 2's cancellation, Applicant appropriately amended claim 5 to maintain proper dependence relationships. The Examiner's comments and rejections are addressed in the order they were presented in the Office Action.

The 35 U.S.C. § 102 Rejection

The Examiner rejected claims 1-8 under 35 U.S.C. § 102(b), as being anticipated by U.S. Patent No. 5,482,010 ("Lemberger"). However, Applicant respectfully traverses this rejection in light of the amendments.

Applicant has amended independent claim 1 to recite an electronic valve means that comprises: "a valve for adjusting the amount of cooling water circulating via the radiator; a motor for transmitting power to said valve to activate the valve; and a motor driving part for applying power to the motor to drive the motor in response to a control signal from the controller." Ample support exists for this amendment. For example, amended claim 1 takes on the limitation from canceled claim 2. Paragraphs [0012] to [0016] also provide support for this amendment.

In addition, Applicant has amended independent claim 6 to recite a valve opening and closing level that is carried out by a proportional integral control using the actual cooling water temperature and the pre-set temperature thus determined as input parameters. Sufficient support exists for this amendment. For example, the new limitation in claim 6 comes from the limitation in canceled claim 7. Additional support can be found in the flow chart in FIG. 2 and Paragraphs [0026] to [0036]. Further, Applicant has amended claim 6 for proper antecedent basis with respect to valve means.

Lemberger, however, teaches the use of a thermostatic valve in connection with a cooling system for an internal combustion engine. During the start of the internal-combustion engine (warm up phase), the thermostatic valve is adjusted so that coolant flow coming from the internal-combustion engine is guided back essentially completely to the internal-combustion engine via a pipe (col. 4, lines 14-19). The thermostatic valve is also

adjusted by supplying or interrupting electric energy to it, which affects coolant temperature such that the coolant temperature will cause the thermostatic valve to change its position to re-direct coolant flow (col. 4, lines 28-37). The control unit initiates the supply of electric energy to the thermostatic valve, based on the signal it receives (col. 4, lines 37-40). To cool the coolant temperature, as well as the internal combustion engine's temperature, the controller also switches on the drive of the cooling blower when it supplies electric energy to the thermostatic valve (col. 8, lines 47-51). The drive of the cooling blower is switched on after the controller conducts various comparisons, including a comparison of the actual coolant temperature and the desired coolant temperature (col. 8, lines 32-46).

Lemberger also teaches that the thermostatic valve comprises an expansion element that further comprises, inter alia, a stationary housing that is fitted into a holder, a flanged-in guiding insert with a pocket type membrane, expansion material, a working piston, a valve disk, and a short-circuit valve disk (col. 4, line 62 - col. 5, line 26). The coolant flows around the housing so that when the coolant temperature rises, the working elements of the housing and the expansion material contained in it are heated (col. 5, lines 62-67). When a certain temperature has been reached, the expansion material expands essentially linearly so that the working piston is moved out, which causes the valve disk and short-circuit valve disk to move and affect coolant flow direction (col. 5, line 67 – col. 6, line 12).

Yet, with regard to claim 1, no where in Lemberger does it teach the use of a motor for transmitting power to the valve to activate the valve and a motor driving part for applying power to the motor as recited by this claim. The Examiner alleges that there is a motor and a motor driving part for the valve but does not cite anything specific in Lemberger. The only motor that Lemberger provides is one that is connected to the cooling blower and not the thermostatic valve (col. 3, lines 59-65; FIG. 1). Moreover, as noted above, the thermostatic valve is activated by coolant temperature, which can be affected by the electric energy supplied to the coolant. Thus, Lemberger does not teach the use of a motor for transmitting power to the valve to activate the valve and a motor driving part for applying power to the motor. As such, Lemberger does not anticipate claim 1 and its dependents, claims 3-5.

Furthermore, with regard to claim 6, Lemberger's thermostatic valve does not respond to the comparative result of the two temperatures to control the flow of circulating cooling water via a proportional integral control using the actual cooling water temperature and the pre-set temperature thus determined as input parameters. This is because Lemberger does not

teach the use of a proportional integral control as recited by claim 6. Thus, Lemberger does not anticipate claim 6 and its dependent, claim 8.

In light of the above, Lemberger does not anticipate the claimed invention, and Applicant respectfully requests withdrawal of the rejection.

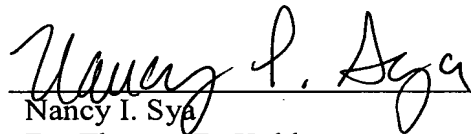
CONCLUSION

In view of the foregoing amendments and remarks, it is believed that the application as a whole is in form for allowance. Should the Examiner have any continuing objections, the Applicants respectfully ask the Examiner to contact the undersigned at 415-442-1106 in order to expedite allowance of the case. Authorization is granted to charge any outstanding fees due at this time for the continued prosecution of this matter to Morgan, Lewis & Bockius LLP Deposit Account No. 50-0310 (matter no. 060945-0141).

Respectfully submitted,

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